

# **SESAR, the European ATM modernisation programme**

# SESAR founding principles

- **ATM needs to be modernised**, especially in view of a sustainable aviation growth
- **Technology is not the main issue:**
  - Decision-making is problematic
  - Actual implementation needs to be ensured
  - Rationalisation of R&D efforts is essential
- ATM modernisation is a **worldwide issue**

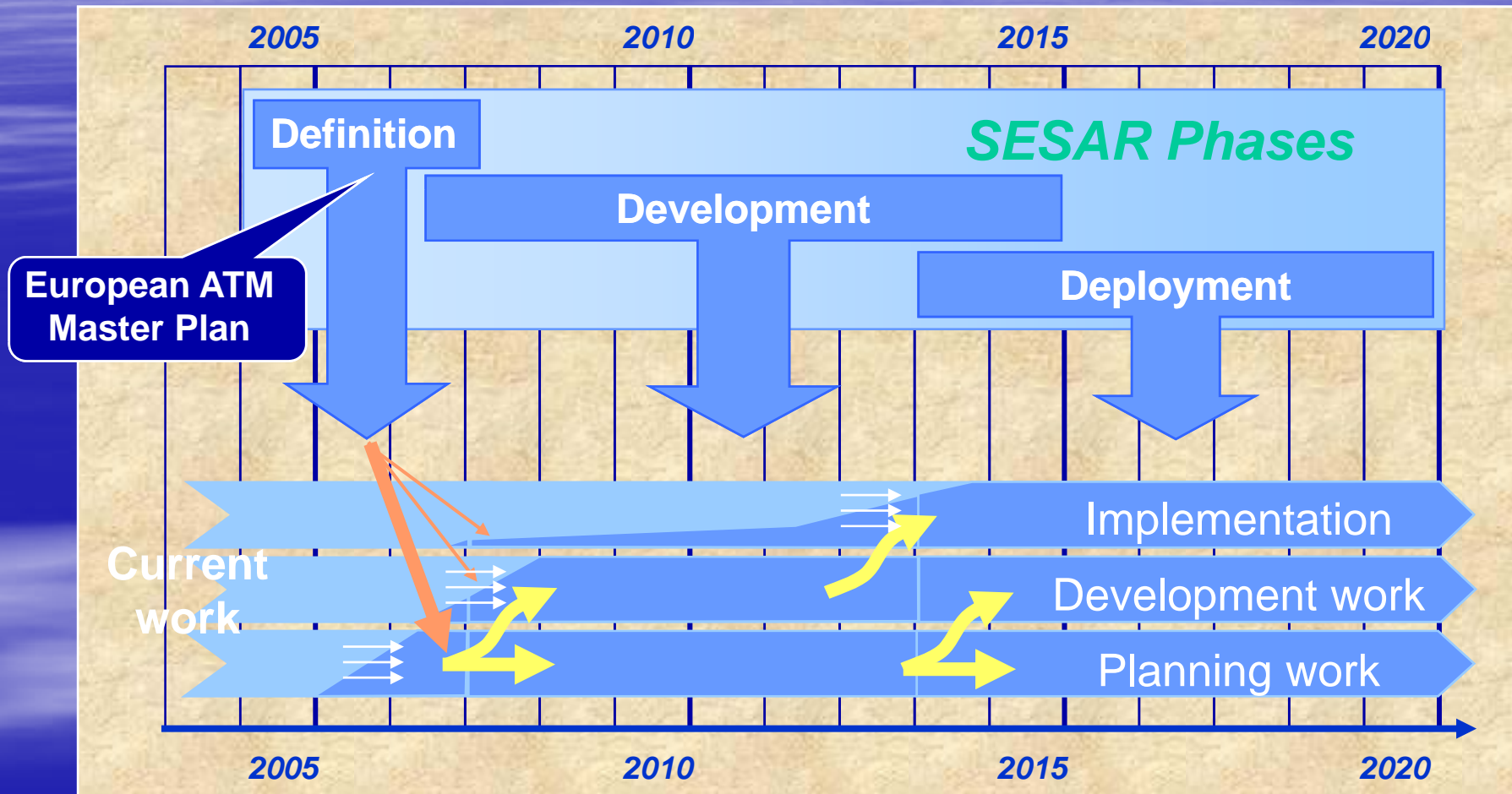
# Introduction

**SESAR is the unique European ATM modernisation programme.**

It is organised in three phases:

- The definition phase (2006-2008), co-funded by the EC and EUROCONTROL
- The development phase (2008-2016), *under the management of the SESAR Joint Undertaking*
- The deployment phase (2015-2025)

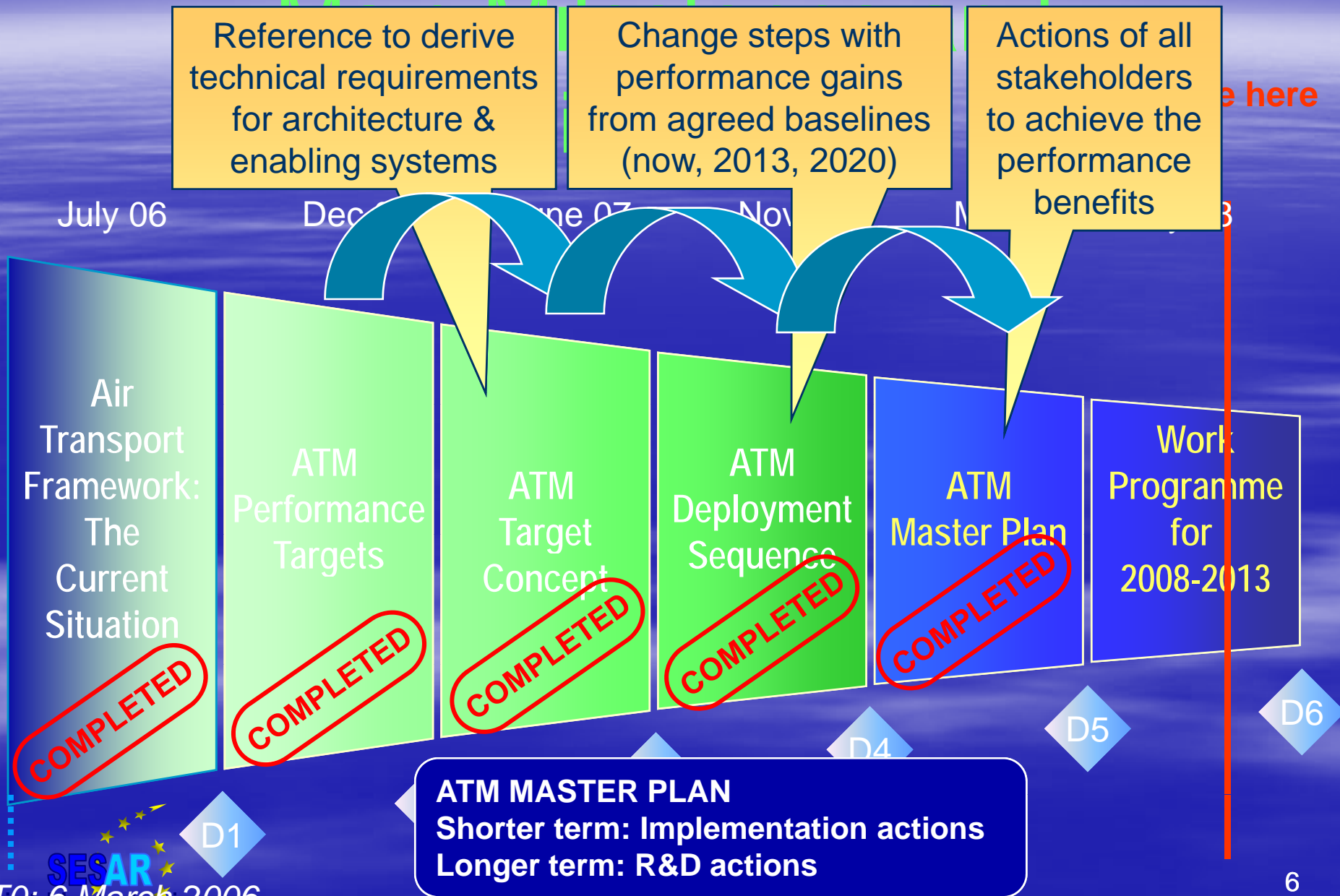
# Overview of the programme



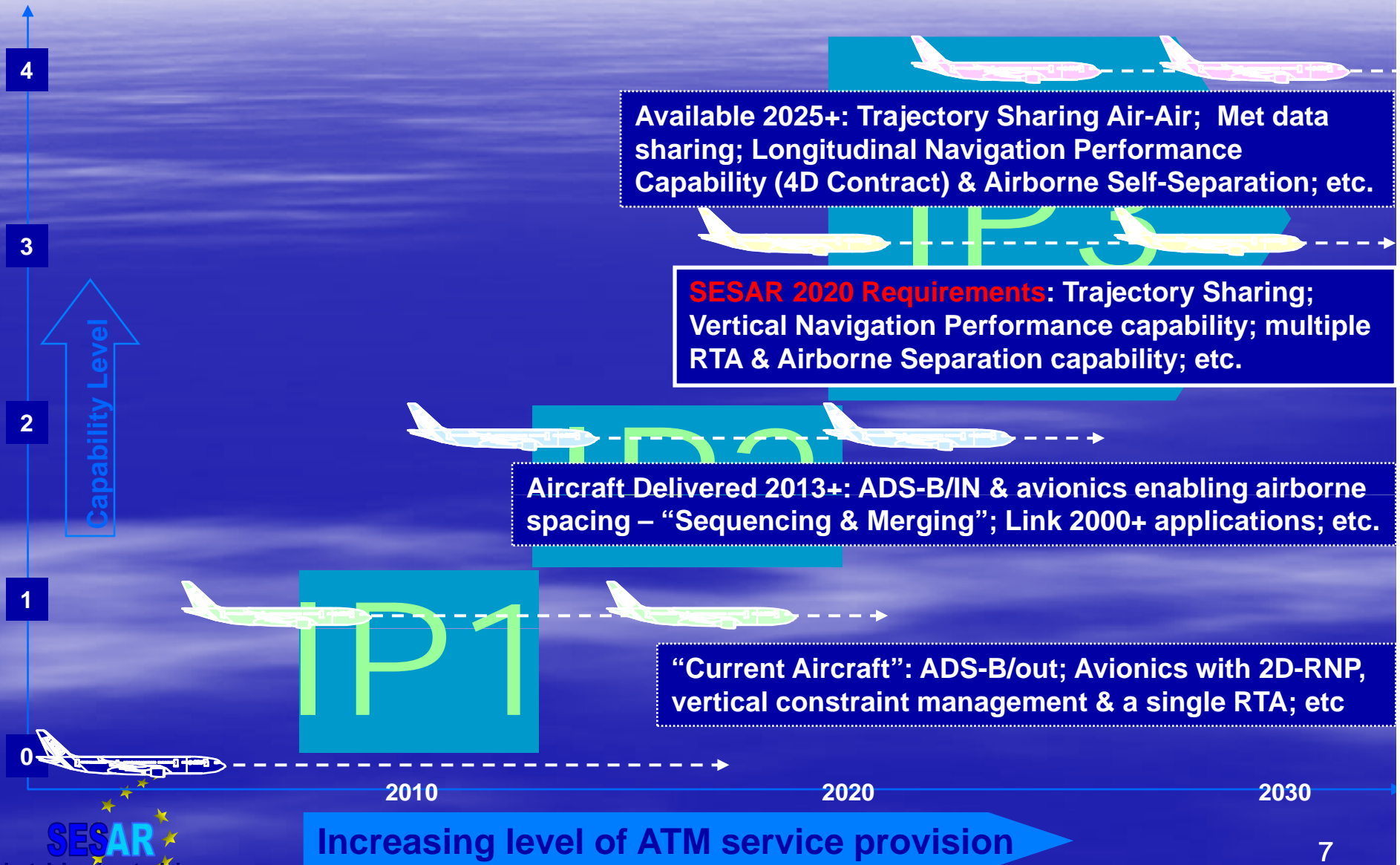
# The SESAR definition phase

- Most of the work was carried out by **the SESAR consortium**, led by Airbus with:
  - A leading contribution from Airspace Users
  - A major input from Air Navigation Service providers
  - A significant participation from staff, military...
  - Participation from non EU industry
- Results have received a full commitment from the consortium

# SESAR Definition Phase



# The ATM Master Plan



# The SESAR Joint Undertaking

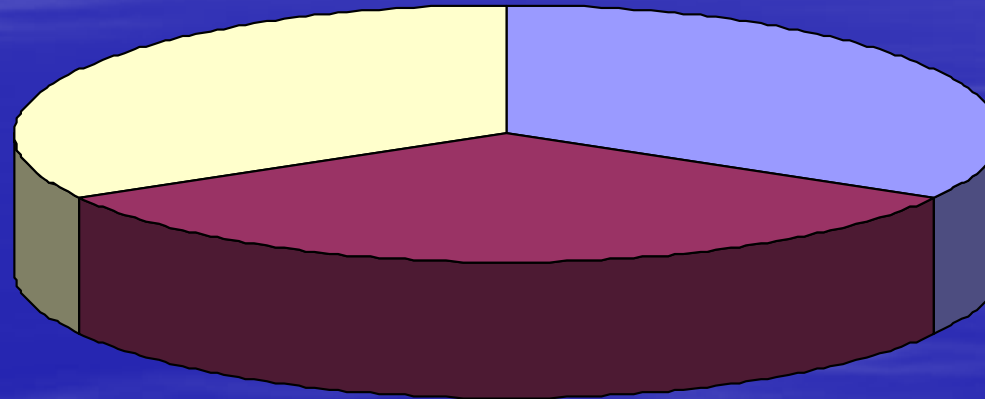
- **Created by the Council of the EU**
- **Responsible for the execution of the ATM Master Plan, and in particular the management of the SESAR Development phase**
- **Two founding members: the EC and EUROCONTROL**
- **Public-private partnership**
- **Open to international participation**



# The SESAR Partnership

**EU: 700 M€**

**Eurocontrol: 700 M€**



**Industry: 700 M€**

ANSPs:

AENA, DFS, DSN  
ENAV, NATS, LFV\*

Industry:

AIRBUS, ALENIA, INDRA  
THALES, NATMIG\*  
HONEYWELL

Airports:

ADP, BAA, FRAPORT  
MUNICH, SCHIPHOL,  
UNIQUE

# The work programme

- Pragmatic – proceed in towards the Conops in small, validated and verifying steps.
- Maintain/Ensure Industrial Competition
- Adopt an (standard) industry methodology for Programme Management
- Create an environment in which all relevant stakeholders, including those outside the JU, have the opportunity to influence

# The work programme

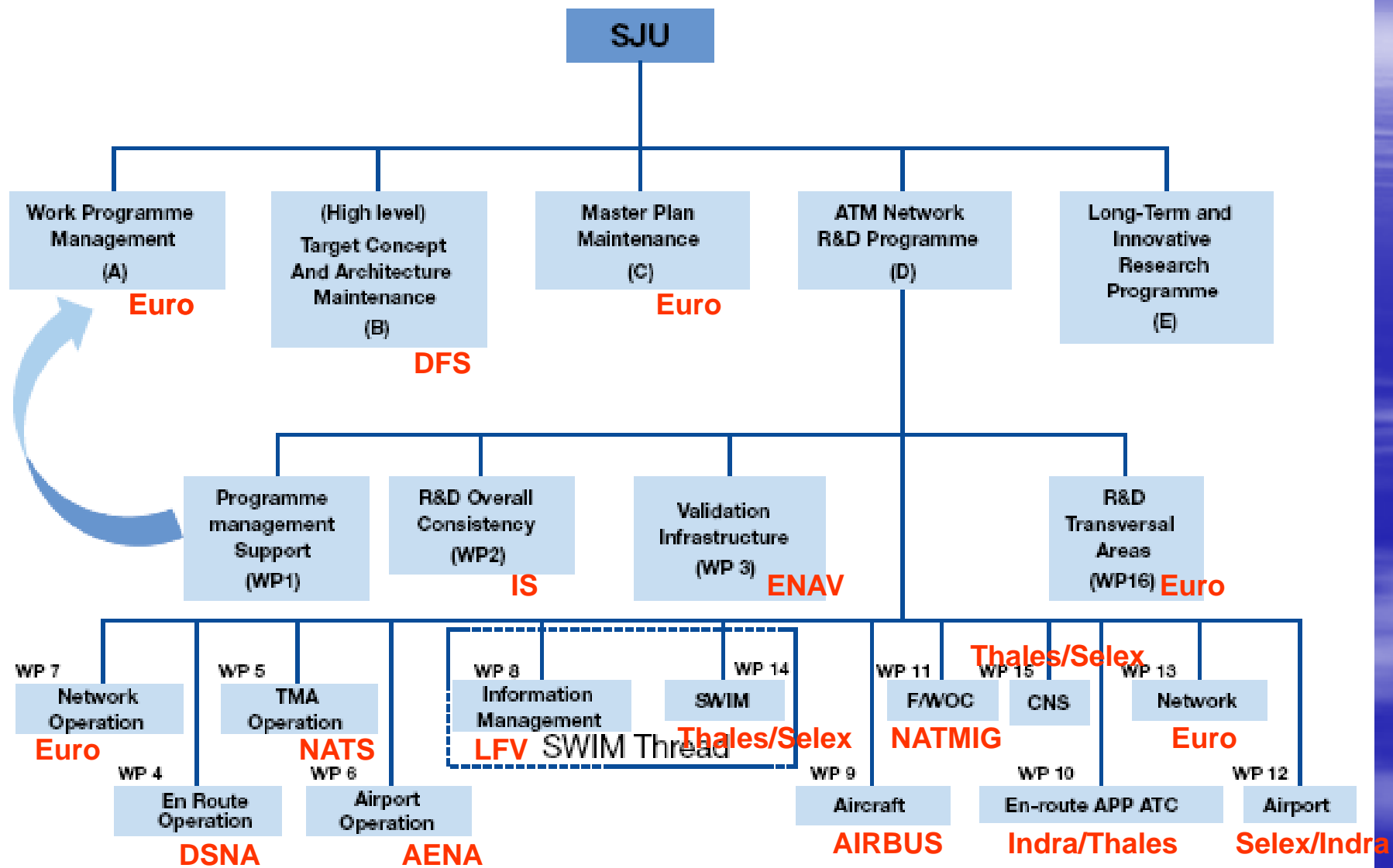
- Define and Follow clear roles and responsibilities.
- Use the DP deliverables, D1 – D6 as a reference, but acknowledge that they will need to be augmented/changed
- Communicate/Disseminate information to the wide community
- Use of performance based European /Int. Standards as a mechanism for promoting change across industry

# Overall work programme structure

- The proposed Work Programme Structure, derived from the D6 deliverable has several groups of Work Package (WP):
  - Overall/Transverse
  - Operational Domains
  - Systems/Technical Domains
- In this context, “Transverse” means cutting across the Operational and/or Technical Domains

# Overall work programme structure

- The target concept maintenance WPB provides THE high level (strategic) architecture & operations oversight & guidance (the Enterprise View), including business, performance and cost views directly for the SJU.
- Industrial Support (WP2) provides consistency at the system level through industry best practice on System Engineering Management and direct support to the SJU on Operational and System alignment (Consistency).



# Work Programme - Relationship View

WPA: Programme Management

WPC: Master Plan Maintenance

WPB: Target Concept Maintenance

WP2a: Overall Consistency

WP4  
En Route  
Operations

WP'TBD'  
FOC/WOC  
Operations

WP5  
TMA  
Operations

WP6  
Airport  
Operations

WP7  
Network  
Operations

WPE: Innovative  
Research

WP8: Information Management

WP2b: Overall System Consistency

WP10  
En-route & Term.  
ATC Systems

WP11  
FOC/WOC  
Systems

WP12  
Airport  
Systems

WP13  
Airspace, Capacity  
Mgmt. Systems

WP9:  
Aircraft  
Systems

WP14: SWIM

WP15: CNS Systems

WP16: Transverse Areas

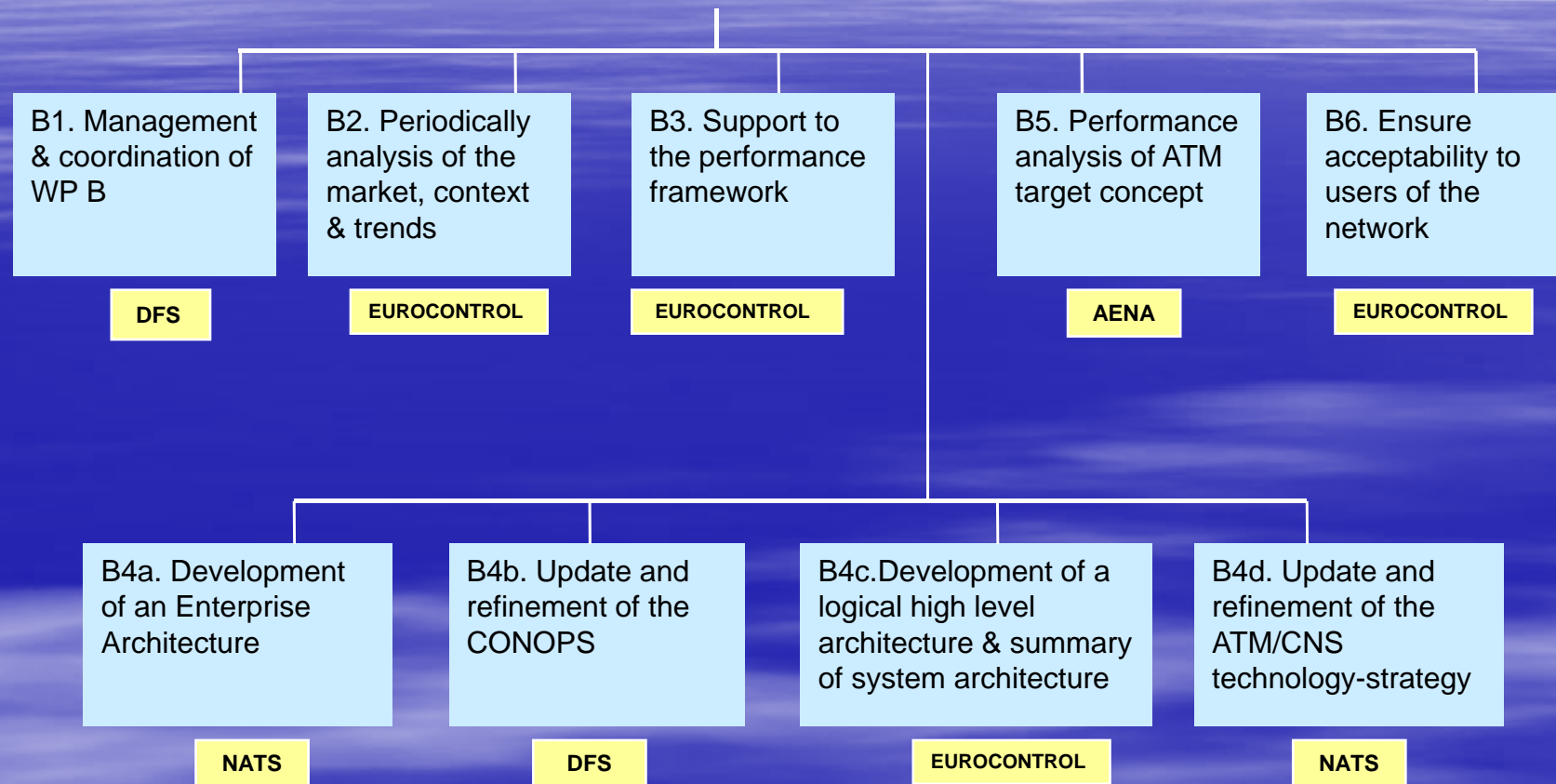
WP3: Validation Infrastructure

# SESAR Development Phase 2008 – 2013

## Work Breakdown Structure **WP B**

*Target Concept and Architecture Maintenance*

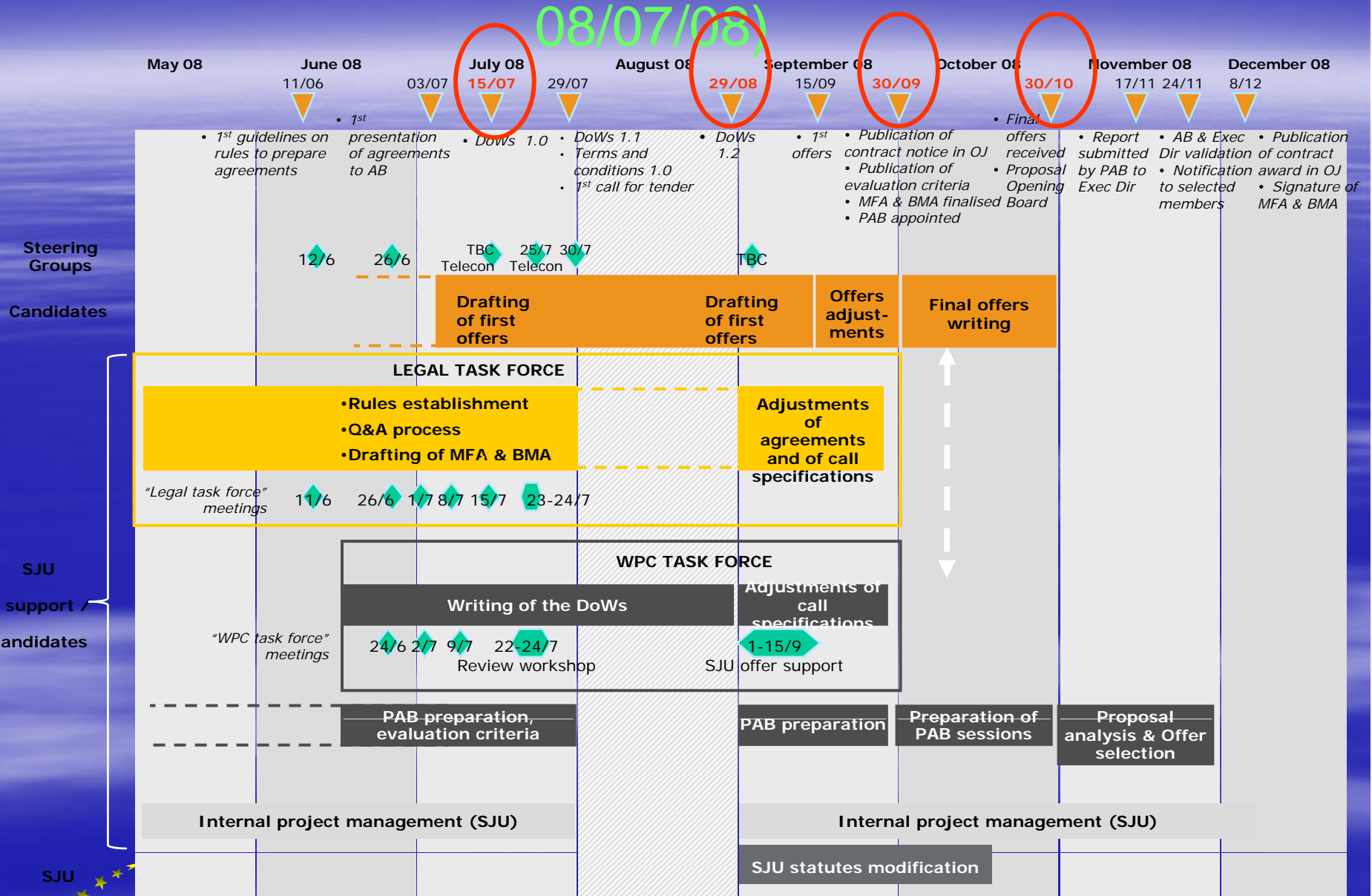
DFS



Leadership shown in yellow boxes



# Overall planning of the Discussion phase (as of 08/07/08)

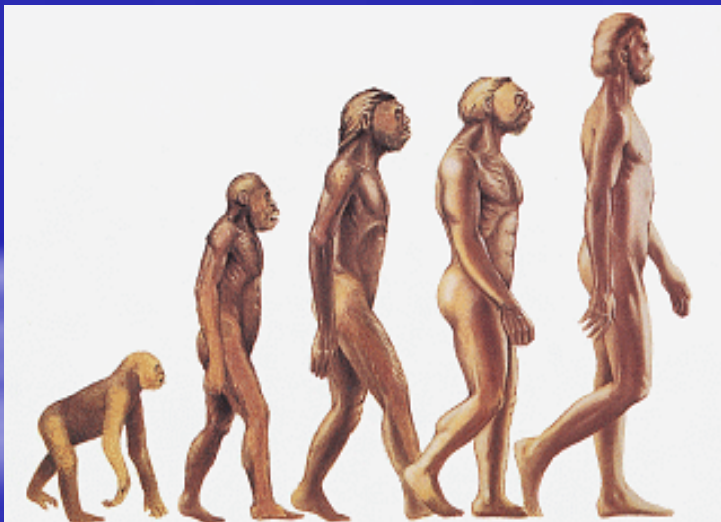


CLOSURE OF DISCUSSION PHASE

# SESAR

## Evolution vs. Revolution?

2009      2013      2016      2020+



Implementation Packages

IP1

IP2

IP3



# Conclusion

- SESAR is a unique opportunity
- All stakeholders are aligning their business plans on a common strategy
- SESAR will be coordinated at an international level
- SESAR is opened to non EU participation

[www.sesarju.eu](http://www.sesarju.eu)

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